```
##########################################################
#
https://oeis.org/A153151 # It is not in OEIS
#
maxblock <- 5 # by choice
a <- 1
for(m in 1:maxblock){
                        a[2^m    ] <- 2^(m+1) - 1
  for(k in 1:(2^m-1)) a[2^m + k] <- 2^m + k - 1
}
A153151 <- a
#
nmax <- 31
a <- 1
for(n in 1:nmax) {
  a[2*n  ] <- 2*a[n] + 1
  a[2*n+1] <- 2*n
}
A153151 <- a
#
https://oeis.org/A153152 # It is not in OEIS
#
maxblock <- 5 # by choice
a <- 1
for(m in 1:maxblock){
                        a[2^(m+1) - 1] <- 2^m
  for(k in 0:(2^m-2)) a[2^m + k] <- 2^m + k + 1
}
A153152 <- a
#
nmax <- 31
a <- 1
for(n in 1:31) {
  a[2*n  ] <- 2*n + 1
  a[2*n+1] <- 2*a[n]
}
A153152 <- a
#
# Axxxxxx Ayyyyyy # They are not in OEIS
nmax <- 31
Axxxxxx <- 1; Ayyyyyy <- 1
for(n in 1:31) {
  Axxxxxx[2*n  ] <- 2*Ayyyyyy[n]+1;
  Axxxxxx[2*n+1] <- 2*n
  Ayyyyyy[2*n  ] <- 2*n+1
  Ayyyyyy[2*n+1] <- 2*Axxxxxx[n]
}
Axxxxxx; Ayyyyyy
#
# http://oeis.org/A065190
#
maxblock <- 5 # by choice
a <- c(1, 3, 2) # If it were c(1, 2, 3), it would be A000027
for(m in 1:maxblock) for(k in 0:(2^m-1)){
  a[2^(m+1)+    k] = a[2^m+k] + 2^m
  a[2^(m+1)+2^m+k] = a[2^m+k] + 2^(m+1)
}
A065190 <- a
#
##########################################################
```

```
#########################################################
#
https://oeis.org/A000079
#
nmax <- 15 # by choice
A000079 <- 2^(1:nmax)
#
https://oeis.org/A000225
#
nmax <- 15 # by choice
A000225 <- 2^(1:nmax) - 1
#
#
https://oeis.org/A061547 # It is not in OEIS
#
nmax <- 15 # by choice
a <- 1
vbase <- rep(c(0,1), nmax); vbase
for(n in 2:nmax){
  ifelse( n%%2 == 0, v <- c(1, vbase[1:(n-1)]), v <- c(1, vbase[2:n]) )
  L <- length(v)-1; a <- c(a, sum(v*2^(L:0)))
}
A061547 <- c(0, a)
#
https://oeis.org/A086893 # It is not in OEIS
#
nmax <- 15 # by choice
a <- 1
vbase <- rep(c(0,1), nmax); vbase # [1] 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1
for(n in 2:nmax){
  ifelse( n%%2 == 0, v <- c(1, vbase[2:n]), v <- c(1, vbase[1:(n-1)]) )
  L <- length(v)-1; a <- c(a, sum(v*2^(L:0)))
}
A086893 <- a
#
https://oeis.org/A083318
#
nmax <- 15
A083318 <- c(1, 2^(1:nmax) + 1)
#

#
https://oeis.org/A095121
#
nmax <- 15
A095121 <- c(1, 2^(2:nmax) - 2)
#
#########################################################
```